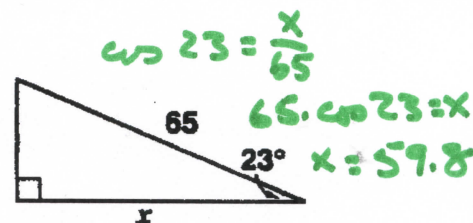
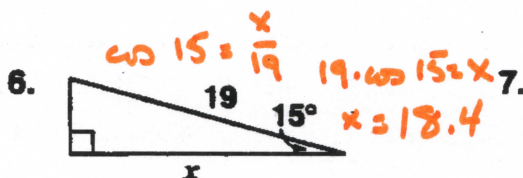
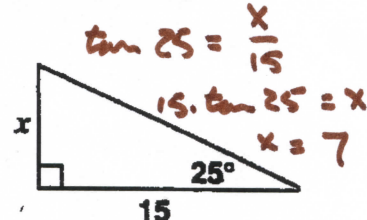
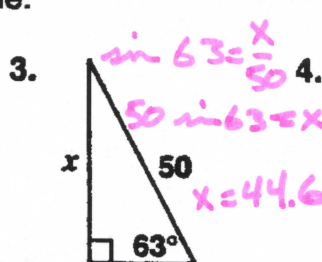
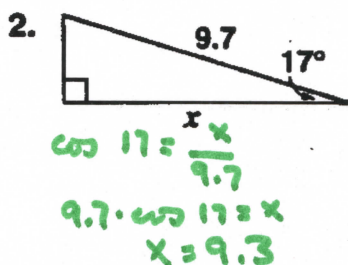
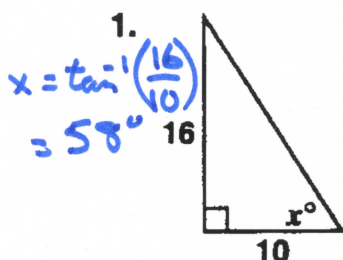


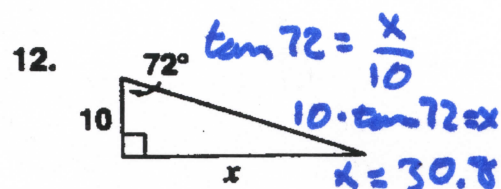
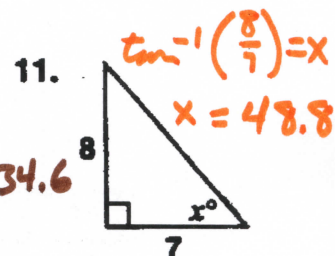
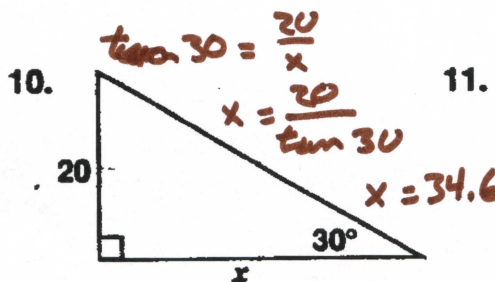
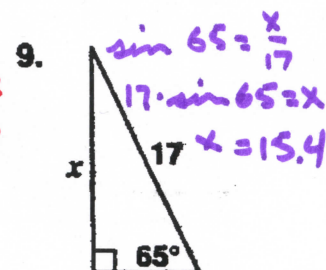
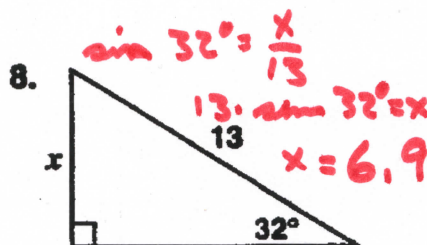
A Crabby Riddle

What do you get when you cross a crab and a math teacher?

To find out, find the missing part of each triangle below using trigonometric ratios. (Round answers to the nearest tenth where necessary.) Shade in the boxes containing the answers. The unshaded boxes will spell out the answer to the riddle.



| | | | | |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| T 58 | A 17.4 | H 6.9 | S 10.2 | W 59.8 |
| N 3 | A 12 | E 9.3 | P 14 | P 11 |
| Y 9 | M 44.6 | A 2.5 | B 30.8 | N 23 |
| S 25 | P 49 | W 8.6 | E 22.1 | R 13 |
| Q 34.6 | L 7.0 | B 18.4 | C 15.4 | D 30 |



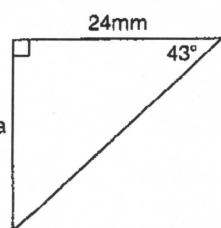
Answer: **A SNAPPY ANSWER**

Name _____

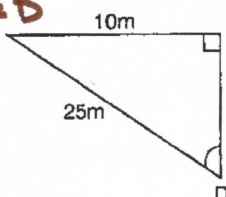
Triangles — Trigonometry to Find Missing Sides and Angles — Crossword

Find the missing angles. In order to figure out the crossword, you must round your answer to the nearest whole number **after** finding the exact answer. Answers found using tables might be slightly off making the crossword incorrect. To check the accuracy of your responses, place your answers in the crossword grid.

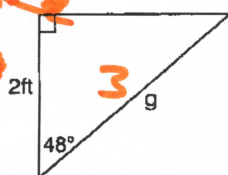
$\tan 43 = \frac{9}{24}$
 $24 \cdot \tan 43 = a$
 $a = 22$



$\sin^{-1}(\frac{10}{25}) = D$
 $D = 24$

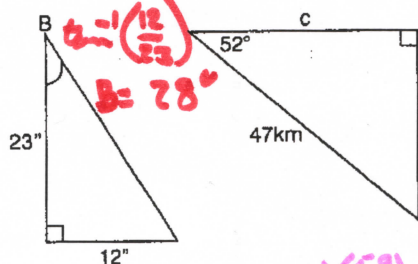


~~$\tan 48 = \frac{2}{g}$~~
 ~~$g = \frac{2}{\tan 48}$~~
 $g = 3$

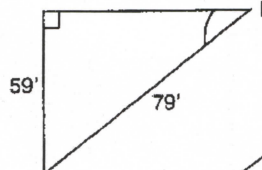


Across

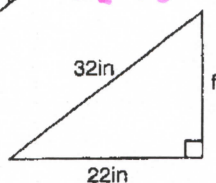
1. f = 23
2. a = 22
5. m∠E = 48
7. m∠H = 54



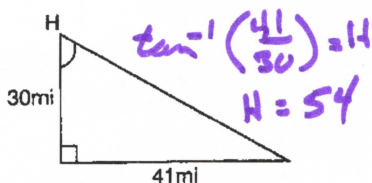
$\cos 52 = \frac{c}{47}$
 $47 \cdot \cos 52 = c$
 $c = 29$



$\sin^{-1}(\frac{59}{79}) = E$
 $E = 48$



$5^2 + 23^2 = f^2$
 $25 + 529 = f^2$
 $f^2 = 554$
 $f = 23.2$



Down

1. c = 29
3. m∠D = 24
4. m∠B = 28
6. g = 3

Triangles — Trigonometry to Find Missing Sides and Angles — Crossword

Crossword #17

Triangles — Trigonometry to Find and Angles — Crossw

| | | | |
|--------|--------|--------|--------|
| 1 2 | 3 3 | | 2 2 |
| 9 9 | | 4 2 | |
| | 5 4 | | 8 8 |
| 6 3 | | | 7 5 |

Missing Sides

In the crossword, you must remember **after** finding an angle might be slightly off due to the accuracy of your calculator grid.



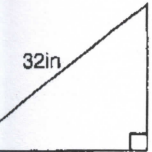
$$\sin 52 = \frac{47}{c}$$

$$47 \cdot \sin 52 = c$$

$$c = 29$$

$$\sin^{-1}\left(\frac{59}{79}\right) = E$$

$$E = 48$$



$$5^2 + 22^2 = f^2$$

$$f^2 = 494 = 1024$$

$$f^2 = 540$$

$$f = 23.2$$

$$\sin^{-1}\left(\frac{41}{30}\right) = H$$

$$H = 54$$

Down

$$D = 29$$

$$B = 28$$

$$3$$

Crossword #17

Triangles — Trigonometry to Find Missing Sides and Angles — Crossword

| | | | | |
|--------|--------|--------|--------|--------|
| 1 2 | 3 3 | | 2 2 | 3 2 |
| 9 9 | | 4 2 | | 4 4 |
| | 5 4 | 8 8 | | |
| 6 3 | | | 7 5 | 4 4 |